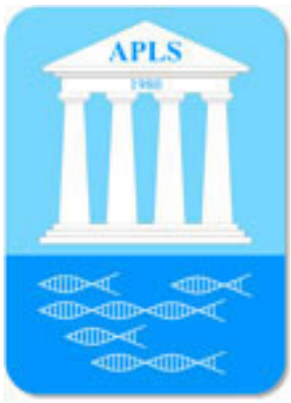

PLS, 15(2), 185-239, Beech Tree Publishing, 10 Watford Close, Guildford, Surrey GU1 2EP, UK.

ROUNDTABLE COMMENTARIES

Policy Options for Combatting Chemical/Biological Terrorism

Kathleen C. Bailey Lawrence Livermore National Laboratory, USA

Jonathan Tucker presents an excellent review of the threat of chemical/biological (C/B) terrorism. His essay is somewhat weak, however, on the issue of what measures should be taken to prepare for and respond to such attacks. This commentary offers a critique of some of Tucker's suggestions, mentions several of the U.S. Government's current efforts to address C/B terrorism, and offers additional options.

Proposals with Problems

The severity of the chemical/biological terrorist threat dictates that resources must not be spent on options that will have little effect. The policy proposals that have the least prospect of success are those that focus on detecting C/B development and production, and on supply of technology, materials, and equipment. The reasons for this are clearly portrayed by Tucker:

- Development and production of C/B agents can be easily hidden. Detection will depend almost exclusively on information obtained through human sources, not through technical means;
- Equipment and materials for most C/B agents are dual-use, readily available, and impossible to control; and
- The technologies for C/B production are described in open literature.

Thus, the following policy options proposed by Tucker are the least likely to succeed:

1. *The Chemical Weapons Convention (CWC) should be brought into force because it will criminalize possession of chemical weapons and require companies to report chemical precursor sales.* Criminalizing chemical weapons possession is unlikely to alter the propensity for terrorists to obtain and use chemical weapons, nor will it enhance the abilities of law enforcement to detect illicit chemical activity. Also, requiring companies to report sales of certain chemicals will not affect prospects for chemical terrorism. Most chemicals that would be used for weapons are so common that their sale and disposition cannot be tracked. If terrorists did want to use a "controlled" chemical, they could either make it from precursors or obtain it from companies not participating in the reporting scheme.

2. *The Department of Commerce should urge companies to police themselves, perhaps by making them liable for misuse of their products by terrorists.* This suggestion is impractical and unlikely to be of use. A company cannot possibly assure that its products are not diverted from a legitimate user to an illegitimate one. Also, a company that makes many tons of a particular chemical would be incapable of tracking the small quantities that would be usable for a terrorist weapon. Controls on sales of more sophisticated C/B-related equipment would be equally futile, as they would not affect the most likely route of terrorists—using simple equipment and readily available dual-use materials.

Kathleen C. Bailey is on the staff of the Director of Lawrence Livermore National Laboratory, P.O. Box 808, Livermore, CA 94550, USA (E-mail: BAILEY16@LLNL.GOV). She conducts research on national security, arms control, and proliferation issues. From 1990 to 1992, Dr. Bailey was Vice President and Director of Arms Control Studies at National Security Research, Inc. Dr. Bailey holds a Ph.D. in comparative politics from the University of Illinois. Her publications include *Doomsday Weapons in the Hands of Many: The Arms Control Challenge of the 90s* (University of Illinois Press, 1991), *Strengthening Nuclear Nonproliferation* (Westview Press, 1993), and *The UN Inspections in Iraq: Lessons for On-Site Verification* (Westview Press, 1995). She has also authored a novel about biological weapons use by terrorists, *Death For Cause* (Meerkat Publications, 1995).

 0730-9384/96/020185-55 US$08.00

3. *Legislation could impose civil liability on anyone who aids and abets terrorists by publishing recipes for production of chemical or biological agents.* C/B production instructions are already openly available in hundreds of books and articles. Attempting such legislation is not worth the risk to constitutional protections, given that the information will still be readily accessible.

4. *Federal agencies should instruct police departments in subtle indicators of C/B agent acquisition, development, and production.* There are no subtle indicators. A C/B production facility can be extremely small and may have no distinguishing features, the equipment and materials used can be common and dual-use, and the activity itself may entail no emissions or other detectable features.

5. *There should be a specialized team to investigate C/B threats prior to an attack, much like the Nuclear Emergency Search Teams.* This proposal makes no sense because there are currently no technologies to allow one to search for a C/B weapon *prior to its use*. There should be a response team with the capability to detect the use of a C/B weapon and to identify the agent being used, but there should be no implication that the team can search for an unused weapon.

6. *The United States should work with other countries on C/B detection and identification systems.* Care should be taken here because the detectors developed for use in terrorist scenarios will be the same as those used on the battlefield. If a potential opponent knows the exact characteristics of the agent U.S. equipment is capable of detecting (e.g., the precise protein coating or the exact chemical compounds), then the adversary will be able to adjust its weapon so that the detector will be ineffective.

Federal Response to C/B Terrorist Attacks

Although there is not space here for a detailed description, it is important to note that the United States federal government has recently undertaken initiatives to address C/B terrorism. In June 1995, Presidential Decision Directive 39 (PDD 39) outlined U.S. policy on counterterrorism. It reaffirmed the FBI's crisis management role in event of terrorist incidents, and the role of the Federal Emergency Management Agency (FEMA) in managing consequences of such incidents. "The primary objective of consequence management operations is to assist state and local governments in carrying out their responsibilities to prevent the additional loss of life and property caused by such emergencies" (FEMA, 1996:2). FEMA is also charged with assuring that state response plans and capabilities are adequate and tested. PDD 39 also directs that a rapidly deployable Domestic Emergency Support Team (DEST), which will have specialized capabilities to respond to chemical/biological incidents, will be available.

The process of implementing PDD 39 has stimulated interagency efforts to coordinate emergency response options and assess current capabilities. For example, a report was being prepared for the president (due July 1996) to evaluate the adequacy of medical stockpiles, care facilities, and evacuation capabilities. Also, FEMA is initiating new programs for technical assistance and training to state and local authorities. These activities are encouraging, but there are significant hurdles to improved U.S. responses to C/B disasters.[1]

In April 1996, the Anti-Terrorism Act was signed into law. It makes the possession or use of a weapon of mass destruction (WMD) in the United States a federal crime, and proposes additional funding for counterterrorism efforts.

Policies with Strong Prospects

If a C/B attack occurs, some of the functions that need to be performed as quickly as possible are detection and identification of the agent, tracking of the cloud, removal and treatment of victims, and decontamination. The U.S. Government already has many of the resources that would be needed to accomplish these tasks, but they need to be better organized. Specifically, there is need for the following.

1. *A WMD Response Team (WMDRT) should be available to respond to the use of any weapon of mass destruction in the United States.*[2] The WMDRT would utilize the extensive infrastructure developed by the Nuclear Emergency Search Team (NEST)—communications, logistics, bureaucratic coordination, etc.—and would utilize U.S. Department of Defense technical expertise for identification of C/B agents, decontamination, and other functions for which the U.S. military is already prepared.

2. *To supplement the WMDRT, National Guard units in every state should receive training and resources to respond to C/B use.* The National Guard is under the authority of state governments and has the resources and infrastructure to manage transportation, communications, and other functions during a large-scale crisis. In addition to C/B training, the National Guard should receive proper equipment to enable them to operate in a contaminated environment, as well as appropriate vaccines. Using the National Guard would be a much less expensive option than "metro teams" proposed for 18 U.S. cities.[3]

3. *Plans for large-scale medical response should be made.* Two parts to this effort are to provide basic treatment information and resources to local authorities and to have ready a team of personnel that can be deployed to the crisis location for additional assistance. On the former, there is a current initiative to give local medical authorities access to first aid procedures for each C/B agent through an adaptation of the existing Chemical and Biological Information

Network software. Regarding the latter, one possibility is to provide specialized WMD training to Disaster Medical Assistance Teams.[4]

4. *Having the FBI as the crisis management agency following a C/B terrorist strike should be reconsidered.* The need to manage the effects of C/B use will be immediate, and will entail activities for which the FBI is less prepared. U.S. Government agencies have differing objectives (e.g., the FBI's interest in protecting information for a criminal investigation can clash with FEMA's emphasis on quick rescue) and capabilities (e.g., the Environmental Protection Agency may have the responsibility for tracking and decontaminating in a chemical event, but the Department of Energy may have the best cloud-tracking capability and the Department of Defense, the best decontamination capability).

5. *Funding for improved detectors should be maintained.* It is technologically possible to build better, faster C/B detectors. Although the U.S. military is currently developing better detection equipment, funding for the effort is declining.[5]

6. *Protective materiel and decontamination capabilities should be made available to civilian emergency personnel.* For example, surplus U.S. military M-17 gas masks and dress overgarments, which are being replaced with upgraded gear, could be made available to subway and local police officers[6] and/or the National Guard.[7]

Notes

1. Many of the problems that must be overcome were outlined by witnesses in recent hearings before the U.S. House of Representatives, Committee on National Security, Subcommittee on Research and Development, on March 12, 1996, and before the U.S. Senate, Committee on Governmental Affairs, Permanent Subcommittee on Investigations, on March 27.
2. Several experts have suggested such a capability. See, for example, the statement by Dr. Billy Richardson before the U.S. Senate Committee on Governmental Affairs, Permanent Subcommittee on Investigations, March 27, 1996.
3. Metro teams are envisioned as specialists who are trained to respond to C/B terrorism. The proposal is for teams to be located in 18 major cities and deployed from there to any location in need. Eighteen teams would cost about $20 million.
4. These teams are drawn from the approximately 6,000 volunteer physicians in the National Medical Disaster System.
5. The Department of Defense allocates less than 1% of its total budget to C/B defense, and annual funding for it has decreased by over 30% in constant dollars since fiscal year 1992, from approximately $750 million in that year to $504 million in 1995. A further cut for next year of $33 million is likely. See statement of Mark E. Gebicke, U.S. General Accounting Office, before the House Committee on National Security, Subcommittee on Military Research and Development, March 12, 1996.
6. This suggestion was made by Jack Sawicki of Geomet Technologies in his testimony before the House Committee on National Security, Subcommittee on Military Research and Development, March 12, 1996.
7. After this commentary was written, legislation was introduced and passed by the U.S. Senate which, if approved by the House as well, will delegate to the Department of Defense the responsibility for training federal, state, and local agencies in emergency response to C/B terrorism. As noted above, this function was identified in PDD 39 as belonging to FEMA. Additionally, the legislation would require the Department of Defense to assist the Surgeon General in establishing metropolitan emergency medical response teams.

References

Federal Emergency Management Agency [FEMA] (1996). *Consequence Management for NBC Terrorism: A Status Report to the President*. January 19.